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THE GENUS *MOLOPHILUS* CURTIS IN QUEENSLAND AND WESTERN AUSTRALIA

(INSECTA: DIPTERA: TIPULIDAE: LIMONIINAE: ERIOPTERINI)

G. Theischinger, Engadine

A b s t r a c t : The information available on the *Molophilus* fauna of Queensland and Western Australia is summarized. Two new subgenera, *Austromolophilus* and *Superbomolophilus*, are established. 26 species and 1 subspecies are described as new. *Molophilus hastatus* ALEXANDER is considered a junior synonym of *M. pulchripes* SKUSE and *M. fuscolineatus* ALEXANDER a junior synonym of *M. longicornis* SKUSE. *M. verticalis reductus* ALEXANDER is considered to be a distinct species, *M. reductus* ALEXANDER.

Introduction

In Australia, the largest limoniine genus is *Molophilus* CURTIS. However, the 161 taxa of the species group considered as valid by OOSTERBROEK and JONAS (1986) were described by only two workers. SKUSE (1980) described the first 15 Australian species mainly from near Sydney, whereas ALEXANDER, in numerous papers from 1921 to 1978, contributed the remaining taxa mainly from Tasmania, Victoria and New South Wales. From this it appears that we know the *Molophilus* fauna of south-eastern Australia reasonably well, whereas the fauna of Queensland and Western Australia has as yet been little explored. In fact only six species of *Molophilus* have hitherto been described from Queensland (ALEXANDER 1921, 1927 a, 1978) and only two species from Western Australia (ALEXANDER 1927 a, 1929 b).

Of the 161 described Australian species and subspecies of *Molophilus* only 32 have ever been illustrated. Therefore, and because of other, mostly technical, difficulties the clarification of the identities of the south-eastern Australian species is progressing slowly, and it seems too early to describe more taxa from south-eastern Australia. However, it appears appropriate at this stage to attempt an interpretation of the few species known from Queensland and Western Australia and to present the wealth of material accumulated in recent years from these previously neglected regions. The information now available on *Molophilus* in Queensland and Western Australia is presented below.

Acknowledgements

I wish to thank all persons who supported this study by collecting specimens and by the loan of material in their care. They are my wife Christine, my daughter Denise, Dr D.J. Bickel, Mr G. Holloway, Dr D.K. McAlpine and Mr M.S. Moulds (Sydney), Dr G. Cassis, Dr D.H. Colless, Dr I.F.B. Common, Dr P. Cranston and Mr M.S. Upton (Canberra), Ms M.A. Schneider, Mr G. Daniels and Dr G.B. Montheith (Brisbane), Dr T.F. Houston (Perth), Dr P.I. Persson (Stockholm) and Dr W.N. Mathis and Dr H.B. Williams (Washington D.C.). In addition I wish to express my gratitude for the support and encouragement that was continuously given to me by the late Ms Z. Liepa and by Dr D.H. Colless (Canberra), by Dr A. Neboiss (Melbourne) and by Dr D.J. Bickel (Sydney) ever since I became interested in Australian Tripulidae.

Material and Methods

For this paper I studied all material of *Molophilus* from Queensland and Western Australia and some other material made available from the Australian Museum in Sydney (AM), from the Australian National Insect Collection in Canberra (ANIC), from my own collection (GT), from the Museum of Victoria in Melbourne (MV), from the Naturhistoriska Riksmuseet in Stockholm, Sweden (NRS), from the Queensland Museum (QM) and from the University of Queensland (UQ), both in Brisbane, from the Smithsonian Institution in Washington D.C., U.S.A. (SIW), and from the Western Australian Museum (WAM) in Perth.

The definitions of supraspecific taxa are given for the known Australian species only. The descriptions of colouration had to be done from variously (fresh, old, dry, in alcohol) preserved material and may therefore be inconsistent. All descriptions and illustrations of the genitalia, however, are based on material cleared in KOH and displayed and preserved in glycerol. The male hypopygium of the *Molophilus* species treated in this paper is naturally rotated through 180°. In the descriptions and figure captions terms as "dorsal" or "ventral" relate to the hypopygium only, and not to the entire insect.

Genus *Molophilus* CURTIS

Molophilus CURTIS 1833: 444.

Type species. *Molophilus brevipennis* CURTIS 1833.

Molophilus CURTIS is a genus of the tribus Eriopterini (subfamiliy Limoniinae, family Tipulidae). The combination of the following characters is considered diagnostic for *Molophilus* in Australia.

Definition. Rostrum short, little developed; meron between mesocoxa and postcoxa extensive, seen from lateral aspect larger than the mesocoxa; setae of legs simple; R1 longer than 2/3 wing length; Rs ending in cell R3, with veins R2+3 and R4+5 distinct; vein R5 not fused with vein M1+2; r-m present; veins CuA2 und 1A not fused distally; cell A2 long and wide.

Austromolophilus subgen.nov.

Molophilus pervagatus group, sensu ALEXANDER.

Type species. *Molophilus pervagatus* SKUSE 1890.

Definition. Male genitalia: dorsal lobe of basistyles small, mesal lobe not developed, ventral lobe long, moderately slender, with apex bent mediad, hook-shaped or not hook-shaped; outer dististyles with base very long and thin; two pairs of inner dististyles.

Remarks. The peculiar shape of the outer dististyles and the paired inner dististyles are considered apomorphic characters and diagnostic for *Austromolophilus*.

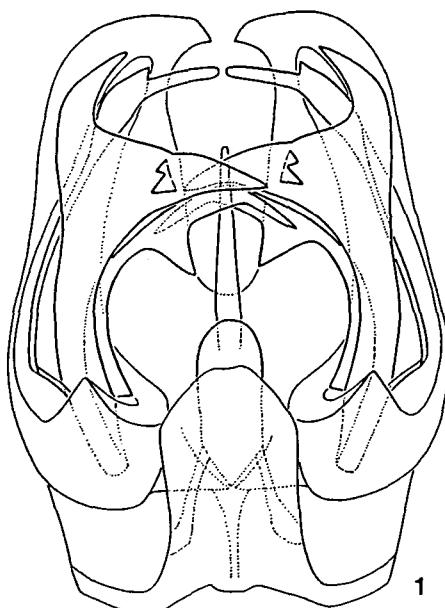
The species known from Queensland and Western Australia are *M.(A.) benesig-*

natus spec.nov., *M. (A.) cassisi* spec.nov., *M. (A.) commoni* spec.nov., *M. (A.) denise* spec.nov., *M. (A.) expansistylus* ALEXANDER, *M. (A.) fragillimus* spec.nov., *M. (A.) trianguliferus* ALEXANDER, *M. (A.) pulchripes* SKUSE, *M. (A.) tenuissimus* spec.nov., *M. (A.) uncinatus* spec.nov. and *M. (A.) uptoni* spec.nov. Of these only *M. trianguliferus* and *M. pulchripes* are widely distributed in eastern Australia. Numerous other species are known from south-eastern Australia.

Name. *Austromolophilus* as this subgenus of *Molophilus* is apparently endemic for Australia.

***Molophilus (Austromolophilus) benesignatus* spec.nov. (Fig. 1)**

Description (♂). Colouration: largely yellowish to blackish brown; top of head grey; scape and pedicel, a lateral mark on each prothorax and anterior pterothorax, and coxae, trochanters and halteres pale yellow to brownish yellow; femora with yellowish white subapical ring, knees yellowish white.



Molophilus (A.) benesignatus spec.nov. - male genitalia, dorsal aspect

Genitalia: basistyles with apex hook-shaped; outer dististyles with distal lobe widened subapically and apex slender and almost parallel sided; dorsal branch of inner dististyles with narrow base, drawn out into a very large subtriangular subapical lobe which is directed mediad and bears two subtriangular teeth, and a small apical lobe directed mesocaudad; ventral branch of inner dististyles similar to dorsal branch but smaller and with subapical lobe not toothed and apical lobe longer and more acute; aedeagus rather short, conical; phallosomic structure with apex evenly rounded.

Dimensions: wing length 4,1 mm.

Material examined. Holotype ♂: Queensland, Birthday Ck, 6 km NW by W of Paluma, 25.9.1980, malaise trap, D.H. Colless (ANIC).

Distribution. Queensland.

Name. *Benesignatus* is considered the Latin term for "well marked", referring to the complex male genitalia of this species.

***Molophilus (Austromolophilus) cassisi* spec.nov. (Fig. 2)**

Description. Colouration: largely greyish to blackish brown; scape, head along eyes, praesutural mesonotum, a few lateral thoracic marks, coxae, trochanters, wing bases, halteres and basistyles pale yellow to dull yellow; legs missing in all available specimens.

Male genitalia: basistyles with apex evenly rounded; outer dististyles with distal lobe strongly widened subapically and slightly widened apically, almost parallel sided in between; dorsal branch of inner dististyles very long with narrow base widened abruptly into narrowly rounded subapical inner lobe set with many small teeth and thence drawn out into a long narrow apex which points mesocephalad; ventral branch of inner dististyles much shorter than dorsal branch, slender, pointed, saber-shaped, slightly arched laterad; aedeagus slender, with long conical apex; phallosomic structure narrowly rounded apically.

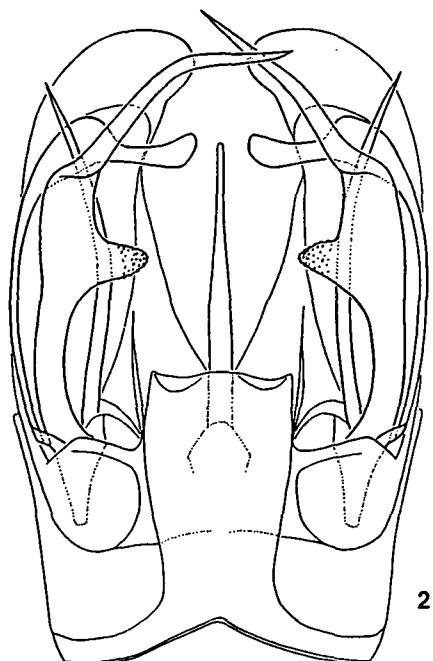
Female genitalia: cerci and sternal valves long and thin, pointed.

Dimensions: wing length, male 3,4-3,7 mm, female 3,5 mm..

Material examined. Holotype ♂: Queensland, Conondale Ra., Bundaroo Ck, 3.12.1985, G. Cassis and D.J. Bickel (ANIC). Paratypes: 2 ♂, 1 ♀, same data as holotype (ANIC, GT).

Distribution. Queensland.

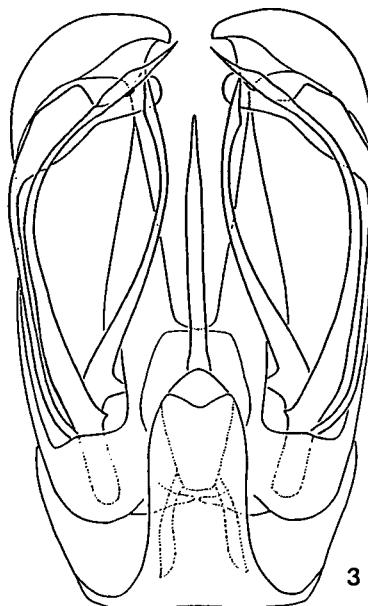
Name. This species is dedicated to Dr G. Cassis, one of its collectors.



Molophilus (A.) cassisi
spec.nov. - male genitalia,
dorsal aspect.

Molophilus (Austromolophilus) commoni spec.nov. (Fig. 3)

Description. Colouration: largely greyish to blackish brown; scape, a lateral mark on anterior pterothorax, coxae, trochanters and halteres pale brownish yellow, femora with dull yellow subapical ring, knees greyish yellow.



Molophilus (A.) commoni
spec.nov. - male genitalia,
dorsal aspect

Male genitalia: basistyles ending in a small hook; outer dististyles with distal lobe strongly widened subapically, slightly widened apically, slender in between; dorsal branch of inner dististyles long, slender, strongly arched mediad from about midlength, somewhat enlarged subapically, apex sharply pointed; ventral branch of inner dististyles slightly shorter and more slender than dorsal branch, otherwise of similar shape but arched laterad; aedeagus slender with apex conical; phallosomic structure narrowly rounded apically.

Female genitalia: cerci and sternal valves long and thin, pointed.

Dimensions: wing length, male 3,8 mm, female 3,6-3,8 mm.

Material examined. Holotype ♂: Queensland, 9 mi. SSE of Ravenshoe, 2750 ft, 21.4.1969, I.F.B. Common and M. Upton (ANIC). Paratypes: 3 ♀, same data as holotype (ANIC, GT).

Distribution. Queensland.

Name. This species is dedicated to Dr I.F.B. Common, one of its collectors.

Molophilus (Austromolophilus) denise spec.nov. (Fig. 4)

Description (♂). Colouration: almost uniformly dark brown; legs of both available specimens missing.

Genitalia: basistyles narrowly rounded apically; distal lobe of outer dististyles with subapical hook and almost rectangular apical plate; dorsal branch of inner dististyles slender, bent mediad near base, thence almost straight; ventral branch of inner dististyles much longer than dorsal

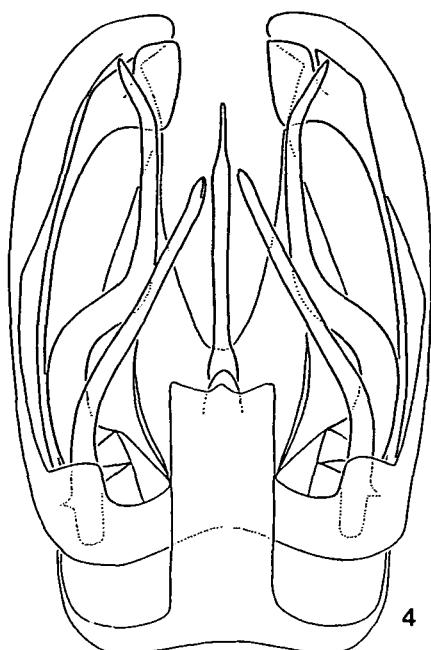
branch, conical, S-shaped with apex directed laterad; aedeagus long, apex conical; phallo-somic structure with apex slim and narrowly rounded.

Dimensions: wing length 2,8-3,0 mm.

Material examined. Holotype ♂: Queensland, Searys Ck, nr Rainbow Beach, 9.1.1986, at light, C., D. and G. Theischinger (ANIC). Paratype: 1 ♂, same data as holotype (GT).

Distribution. Queensland.

Name. This species is named after my daughter, her name being regarded as an undeclinable noun in apposition to the generic name.



Molophilus (A.) denise spec. nov. - male genitalia, dorsal aspect

Molophilus (Austromolophilus) expansistylus ALEXANDER

Molophilus expansistylus ALEXANDER 1929 b: 344.

Primary type. Holotype ♂: Victoria, Ringwood, 400 ft, 27.5.1927, C. Barrett (SIW).

Remarks. ALEXANDER (1929) recorded the holotype and 3 other males and 4 females of *M. expansistylus* from the type locality; he did not illustrate the species.

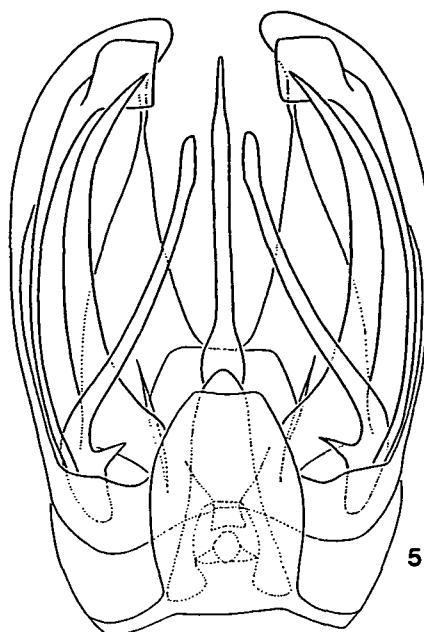
ALEXANDER (1944) recorded *M. expansistylus* from southern Queensland: Eukey, Jan. 1934, Wilson.

Material examined. None.

Distribution. Queensland, Victoria.

Molophilus (Austromolophilus) fragillimus spec.nov. (Fig. 5)

Description. Colouration: largely yellowish to brownish grey, with scape, a lateral spot on pterothorax, and coxae, trochanters, wing bases and halteres markedly paler; legs brownish grey without distinctive pattern.



Molophilus (A.) fragillimus
spec.nov. - male genitalia,
dorsal aspect

Male genitalia: basistyles apically narrowly rounded; outer dististyles with distal lobe ending in a large, almost square plate; dorsal branch of inner dististyles slim, bent mediad near base, otherwise slightly arched laterad, apex obtuse and hardly enlarged; ventral branch of inner dististyles wide at base, horn-shaped, slightly and evenly arched mediad; aedeagus slender, long, apex conical; phallosomic structure with apex narrowly rounded.

Female genitalia: cerci and sternal valves long, thin, pointed.

Dimensions: wing length, male 2,8-3,2 mm, female 2,8-3,4 mm.

Material examined. Holotype ♂: Queensland, Moses Ck, 4 km N by E of Mt

Finnigan, 15.10.1980, malaise trap, D.H. Colless (ANIC). Paratypes: Queensland: 3 ♂, 2 ♀, same locality as holotype, 15.-16.10.1980, malaise trap, D.H. Colless (ANIC, GT); 2 ♂, 2 ♀, 16°35'S/145°22'E, Julatten 26.9.1980, at light, D.H. Colless (ANIC, GT).

Distribution. Queensland.

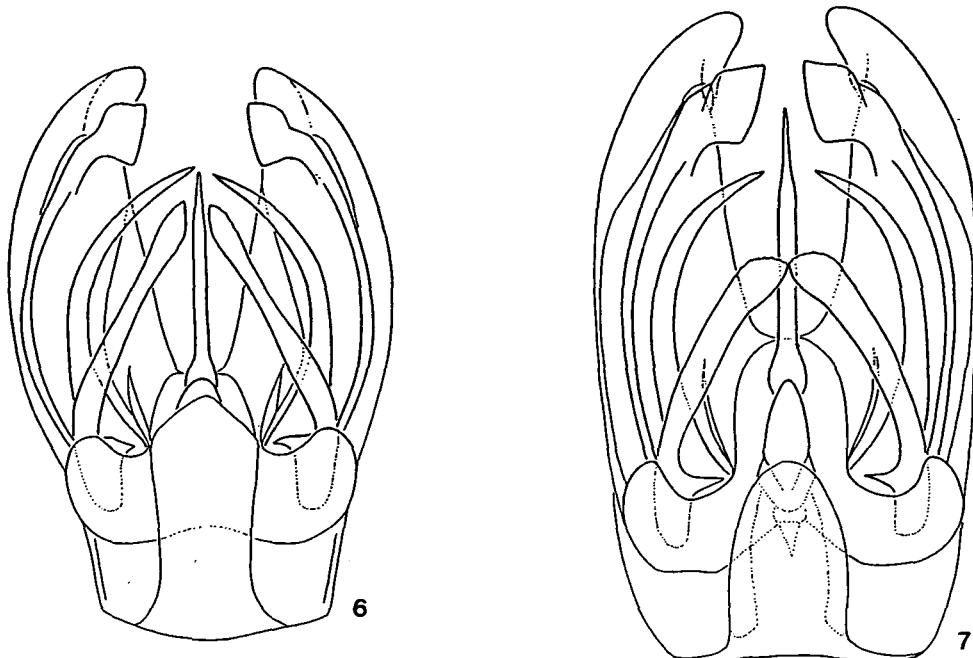
Name. The specific name is from the Latin adjective *fragilis* (=frail), the superlative referring to the very thin dististyles of this species.

Molophilus (Austromolophilus) trianguliferus ALEXANDER (Figs 6, 7)

Molophilus trianguliferus ALEXANDER 1927e: 364.

Primary type. Holotype ♂: New South Wales, Wentworth Falls, Blue Mts, 2844 ft, 8.11.1921, A. Tonnoir (ANIC).

Remarks. ALEXANDER (1927e) based *M. trianguliferus* on a series of 5 males and 1 female from New South Wales. Before I examined the above material I saw material of *M. trianguliferus* from New South Wales, Victoria and Tasmania. This species seems to be the most common *Molophilus* in south-eastern Australia, and it shows significant variability even in the male genitalia.



Molophilus (A.) trianguliferus ALEXANDER - male genitalia, dorsal aspect

Material examined. Queensland: 2 ♂, 2 km S of Horseshoe Lookout, Blackdown Tableland, 23.-24.4.1981, at light, D.H. Colless (ANIC, GT); 1 ♂, junction of Goldmine and Davies Cks, Kuranda-Mareeba rd, 3.5.1987, D.H. Colless (ANIC); 1 ♂, Woodridge, 16.5.1974, J. Martin (MV); 1 ♂, Upper Brookfield, near Brisbane, 4.4.1967, N. Dobrotworsky (MV).

Distribution. Queensland, New South Wales, Victoria, Tasmania.

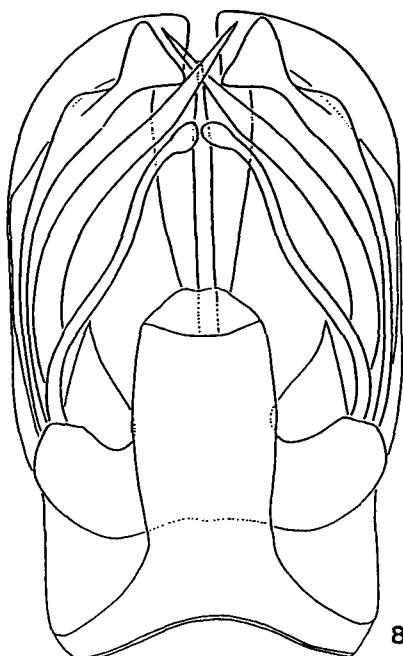
Molophilus (Austromolophilus) pulchripes SKUSE (Fig. 8)

Molophilus pulchripes SKUSE 1890: 813.

Molophilus hastatus ALEXANDER 1927e: 359, syn.nov.

Primary types. Lectotype ♂ of *M. pulchripes* SKUSE: New South Wales, Sydney, Sep., no more data available (ANIC). Holotype ♂ of *M. hastatus* ALEXANDER: Tasmania, Burnie, 25.10.1922, A. Tonnoir (ANIC).

Remarks. ALEXANDER (1929c) was the first to illustrate the hypopygium of *M. pulchripes*. After comparison of material identified by Alexander as *M. pulchripes* with the holotype of *M. hastatus* it appears to me that those two forms are not specifically distinct. *M. pulchripes* is somewhat variable, geographically and individually, even in characters of the male genitalia.



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M a t e r i a l e x a m i n e d . Holotype of *M. hastatus* ALEXANDER; Queensland: 2 ♂, 1 ♀, 15°47'S/145°14'E, Shiptons Flat, 17.-18.10.1980, at light, D.H. Colless (ANIC); 1 ♂, Clayton Gully, 2,5 mi. E of Cunningham's Gap, 1.6.1966, Z. Liepa (ANIC); 2 ♂, Mitchell Gully, 2 mi. E of Cunningham's Gap, 2.6.1966, Z. Liepa (ANIC). **Distribution.** Queensland, New South Wales, Victoria, Tasmania.

***Molophilus (Austromolophilus) tenuissimus* spec.nov.**

(Fig. 9)

D e s c r i p t i o n (♂). Colouration: largely greyish brown, with bases of antennae, a lateral spot on praesutural mesonotum, and coxae, trochanters, wing bases and halteres whitish to dull yellow; legs missing.

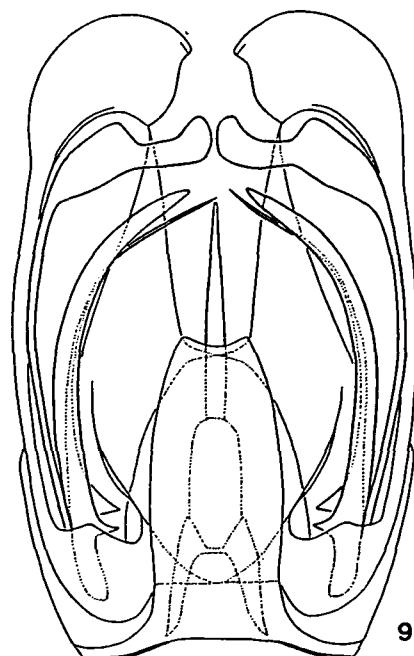
Genitalia: basistyles ending in an angular and a widely rounded lobe; outer dististyles with distal lobe strongly widened subapically and apically slender and parallel sided in between; dorsal branch of inner dististyles slim, foliate, slightly and evenly curved mediad; ventral branch of inner dististyles as long and similarly curved as dorsal branch but extremely slender and sharply pointed; aedeagus of moderate length, conical; phallosomic structure slim, with apex evenly rounded.

Dimensions: ? (wings missing); a small species.

M a t e r i a l e x a m i n e d . Holotype ♂: Western Australia, 8 mi. N of Bunbury, 1.10. 1970, D.H. Colless (ANIC).

Distribution. Western Australia.

Name. The specific name is from the Latin adjec-



***Molophilus (A.) tenuissimus* spec.nov. - male genita-**
lia, dorsal aspect

tive *tenuis* (=thin), the superlative referring to the extremely thin ventral branch of the inner dististyles in this species.

Molophilus (Austromolophilus) uncinatus spec. nov. (Fig. 10)

Description (♂). Colouration: largely yellowish to greyish brown, scape, coxae, trochanters, wing bases and halteres pale to dull yellow; legs yellowish to greyish brown with somewhat darker apical ring on femora and subbasal ring on tibiae, knees yellowish white.

Genitalia: basistyles moderately slender, tapered with narrowly truncate apex and forming a substantial hook directed anteriorly; outer dististyles bent before midlength, thence widened for some distance and ending in a narrow more or less sinuous conus; dorsal branch of inner dististyles at least twice as long as ventral branch, with long narrow stem, then enlarged for some distance and with numerous bristles on mesal face and ending in a straight obtuse cone; ventral branch of inner dististyles subtriangular, narrow, arched mediad; aedeagus long, slender, conical; phallosomic structure with apex subpentagonal.

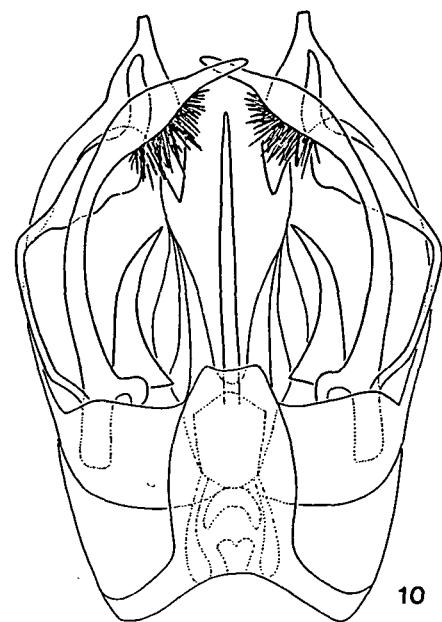
Dimensions: wing length 3,2-3,5 mm.

Material examined. Holotype ♂: Queensland, Birthday Ck, 6 km NW by W of Paluma, 25.9.1980, at light, D.H. Colless (ANIC).

Paratypes: 2 ♂, same data as holotype (ANIC, GT).

Distribution. Queensland.

Name. The specific name is from the Latin adjective *uncinatus* (=furnished with hooks), referring to the basistyles of this species.



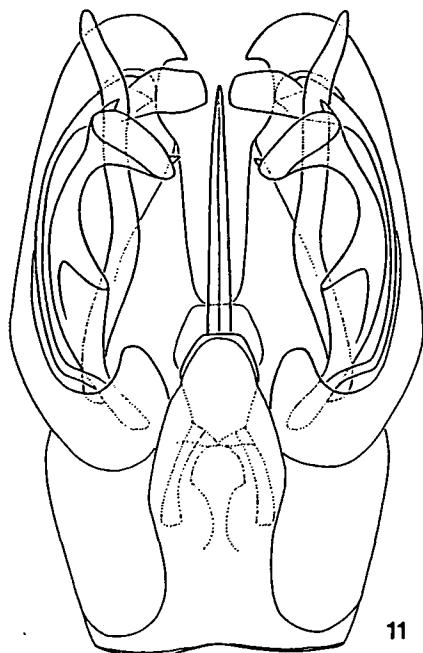
Molophilus (A.) uncinatus
spec.nov. - male genitalia
dorsal aspect

Molophilus (Austromolophilus) uptoni spec.nov.

(Fig. 11)

Description (♂). Colouration: largely yellowish brown to pale greyish brown, with top of head, base of antennae and mesonotum dull yellow,

and pleura, coxae, trochanters and halteres yellowish white; legs largely greyish yellow, femora with brownish black apical ring; wings whitish grey with two dark grey patches.



Molophilus (A.) uptoni
spec.nov. - male genitalia
dorsal aspect

Genitalia: basistyles somewhat excavate on mesal face subapically and ending in a hook; outer dististyles with distal lobe widened subapically and apically, notched in between; dorsal branch of inner dististyles with base widening to about midlength and with apex strongly enlarged and bearing two small pointed teeth; ventral branch of inner dististyles longer than dorsal branch, slender, slightly sinuous, with apex rounded; aedeagus rather long, slender, conical; phallosomic structure with apex obtuse; slightly truncate.

Dimensions: wing length 3,6-4,2 mm.

Material examined. Holotype ♂: Queensland, Suicide Ck, 8 km W by S Millaa Millaa, 25.4.1981, at light, D.H. Colless (ANIC). Paratypes: Queensland: 5 ♂, same data as holotype (ANIC, GT); 1 ♂, 9 mi. SSE of Ravenshoe, 2750 ft, 21.4.1969, I.F.B. Common and M. Upton (ANIC).

Distribution. Queensland.

Name. This species is dedicated to Mr M.S. Upton, one of its collectors.

Subgenus *Molophilus* CURTIS

Molophilus CURTIS 1833: 444.

Type species. *Molophilus brevipennis* CURTIS 1833.

Definition. Male genitalia: posterior margin of tergite 9 not strongly sclerotized or armed; only one pair of inner dististyles; phallosomic structure not divided into two halves.

Remarks. The species known from Queensland and Western Australia are listed under four species groups: *M. gracilis* group, *M. lyratus* group, *M. plagiatus* group, *M. verticalis* group. At this stage all Australian species of *Molophil-*

lus except for those listed under *Austromolophilus*, *Superbomolophilus* and *?Molophilus* are considered members of the typical subgenus.

***Molophilus (Molophilus) gracilis* group**

Molophilus gracilis group, *M. gracilis* subgroup, sensu ALEXANDER.

Definition. Male genitalia: dorsal, ventral and mesal lobe of basistyles mostly significantly developed, but ventral lobe not hook-shaped; dististyles lying in the notch formed by the lobes of basistyles.

Remarks. The species known from Queensland and Western Australia are *M. (M.) gracilis* SKUSE, *M. (M.) multispicatus* ALEXANDER and *M. (M.) fergusonianus* ALEXANDER. A large number of species are known from south-eastern Australia.

***Molophilus (Molophilus) gracilis* SKUSE** (Fig. 12)

Molophilus gracilis SKUSE 1890: 808.

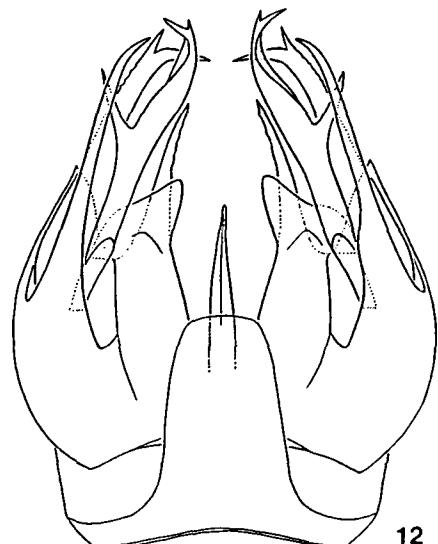
Primary type. Lectotype ♂: New South Wales, no more data available (ANIC).

Remarks. Alexander (1929c) was the first to illustrate the hypopygium of *M. gracilis*; he also commented on the variability of this species.

Material examined. 1 ♂, Queensland, 16°35'S/145°22'E, Julatten, 26.9.

1980, at light, D.H. Colless (ANIC).

Distribution. Queensland, New South Wales, Victoria, Tasmania.



Molophilus (M.) gracilis
SKUSE - male genitalia,
dorsal aspect

***Molophilus (Molophilus) multispicatus* ALEXANDER** (Fig. 13)

Molophilus (Molophilus) multispicatus ALEXANDER 1978: 171.

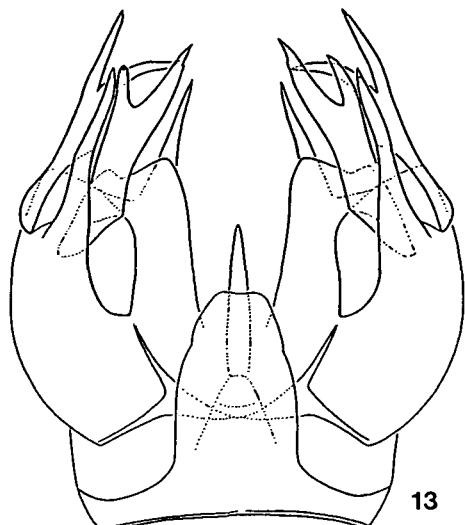
Primary type. Holotype ♂, Queensland, Atherton, Nov. 1972, Hemmingsen (SIW).

Remarks. *M. multispicatus* hitherto known from the holotype only, is most probably identical with the material illustrated in Fig. 13 of this paper. It

appears to me that the position of the dististyles in the holotype has been inverted by the method of preservation (slide = "squash" preparate) and was described and illustrated accordingly by ALEXANDER (1978). Material examined. Holotype; Queensland: 4 ♂, 15°14'S/145°07'E, 7 km N of Hope Vale Mission, 4.10.1980, at light, D.H. Colless (ANIC, GT); 1 ♂, 15°17'S/145°10'E, 5 km W by N of Rounded Hill, 7.10.1980, at light, D.H. Colless (ANIC); 1 ♂, 15°30'S/145°16'E, Mt Cook Nat.P., 12.10.1980, malaise trap, D.H. Colless (ANIC); 1 ♂, 15°30'S/145°16'E, 1 km S of Mt Cook, 14.10.1980, malaise trap, D.H. Colless (ANIC).

Distribution. Queensland.

Molophilus (M.) multispicatus
ALEXANDER - male genitalia,
dorsal aspect



Molophilus (Molophilus) fergusonianus ALEXANDER

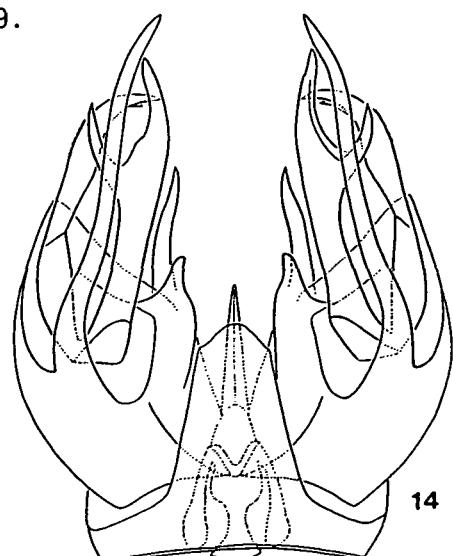
(Fig. 14)

Molophilus fergusonianus ALEXANDER 1927c: 39.

Primary type. Holotype ♂: New South Wales, Sydney, 2.12.1923, F.W. Ferguson (ANIC).

Remarks. *M. fergusonianus* was hitherto known from the holotype only. From ALEXANDER's (1927c) description and from the rather poor remains of the holotype (genitalia missing) I am quite positive that the material listed above belongs to *M. fergusonianus*.

Material examined. Holotype; 1 ♂, Queensland, Beerburum Ck, Beerburum, 23.5.1966, Z. Liepa (ANIC); 1 ♂, New



Molophilus (M.) fergusonianus ALEXANDER - male genitalia, dorsal aspect

South Wales, Sydney, 14.10.1923, Health Dept (ANIC); 1 specimen (abdomen missing), A.C.T., Black Mountain, 2.6.1965, malaise trap, I.F.B. Common and M.S. Upton (ANIC).

Distribution. Queensland, New South Wales.

Molophilus (Molophilus) lyratus group

Molophilus gracilis group, *M. ruficollis* subgroup, sensu ALEXANDER.

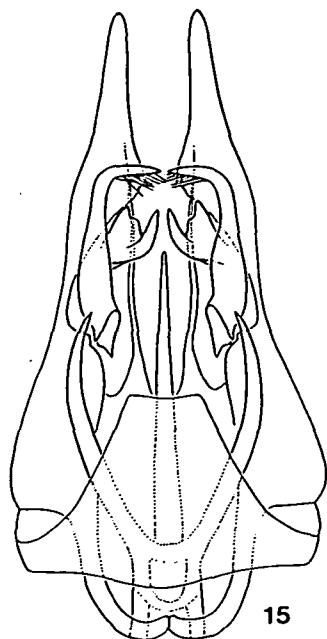
Definition. Male genitalia: mesodorsal apodemes of basistyles very long and strongly arched, leaving room for a very extensive, long and widely forked phallosomic structure; dististyles articulating rather far from the base of basistyles and very close together, the outer dististyles with very thin base.

Remarks. This is a very distinct group comprising only one species from Queensland, *M. (M.) collessi* spec.nov., three described species and a number of as yet undescribed species from south-eastern Australia.

Molophilus (Molophilus) collessi spec.nov. (Fig. 15)

Description (♂). Colouration: largely greyish to blackish grey, rostrum, base of antennae, sides of praesutural mesonotum, meso- and metacoxae and trochanters somewhat paler, wing bases and halteres pale yellow.

Male genitalia: tergite 9 basally more than three times as wide as apically; basistyles drawn out into a long, slightly rounded point, and with obtusely angled subapical inner lobe; outer dististyles with distal lobe trifid, consisting of a finger-shaped mesal arm, a pointed subtriangular lateral lobe and a short obtuse subtriangular lobe in between; inner dististyles horn-shaped, somewhat enlarged near base, largely straight, only the distal fourth bent



Molophilus (M.) collessi spec.nov. - male genitalia, dorsal aspect

mediad at about a right angle and set with bristles; aedeagus long, conical; phallosomic structure a simple smooth fork without any teeth or branches. Dimensions: wing length 4.5 mm.

Material examined. Holotype ♂: Queensland, 17°02'S/145°37'E, 3 km N by E of Mt Tip Tree, 20.10.1980, at light, D.H. Colless (ANIC). Distribution. Queensland.

Name. This species is dedicated to its collector, Dr D.H. Colless.

Molophilus (Molophilus) plagiatus group

Molophilus plagiatus group, sensu ALEXANDER.

Definition. Male genitalia: mostly only ventral lobe of basistyles well developed, its apex generally hook-shaped; rarely also dorsal lobe of basistyles more or less developed (*M. annulipes* subgroup of Alexander); apex of outer dististyles divided into two rods or blades.

Remarks. The species known from Queensland and Western Australia are *M. (M.) acutissimus* spec.nov., *M. (M.) binnaburra* spec.nov., *M. (M.) danielsi* spec.nov., *M. (M.) hollowayi* spec.nov., *M. (M.) indivisus occidentalis* subsp.nov., *M. (M.) longifurcatus* spec.nov., *M. (M.) macalpinei* spec.nov., *M. (M.) manjimupensis* spec.nov., *M. (M.) mouldsi* spec.nov., *M. (M.) longioricornis* ALEXANDER, *M. (M.) pimelia* spec.nov., *M. (M.) subannulipes* ALEXANDER, *M. (M.) vallisspei* spec.nov., *M. (M.) walpole* spec.nov. and *M. (M.) zenta* spec.nov. There are many species of this group in south-eastern Australia.

Molophilus (Molophilus) acutissimus spec.nov. (Fig. 16)

Description (♂). Colouration: largely dull reddish to greyish brown with bases of antennae, coxae, trochanters and halteres only slightly paler.

Genitalia: basistyles long and slender with apical hook directed anteromediad; outer dististyles short, apex forked into two short and rather obtuse branches; inner dististyles long, strongly bent posteromediad from slightly beyond midlength; aedeagus long and thin; Phallosomic structure broadly oval, appearing notched apically.

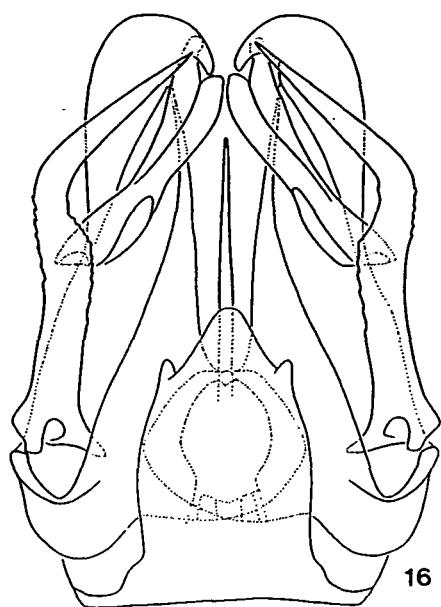
Dimensions: wing length 3,6 mm.

Material examined. Holotype ♂: Queensland, Moses Ck, 4 km N by E of Mt Finnigan, 15.10.1980, malaise trap, D.H. Colless (ANIC).

Distribution. Queensland.

Name. The specific name is from the Latin adjective *acutus* (= pointed), the superlative referring to the sharply pointed inner dististyles of this species.

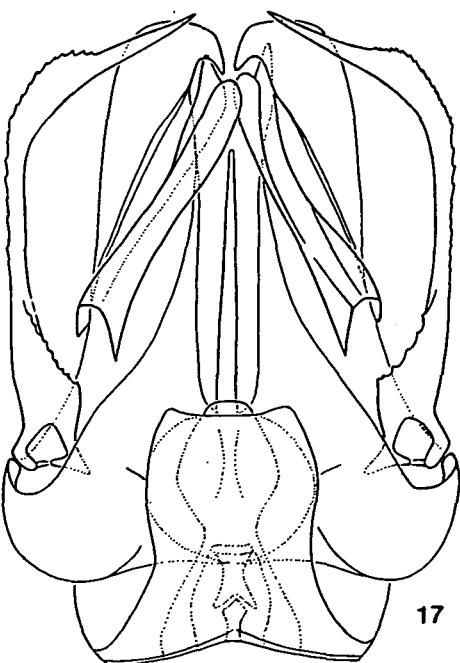
Molophilus (M.) acutissimus spec.nov. - male genitalia, dorsal aspect



Molophilus (Molophilus) binnaburra spec.nov.

(Fig. 17)

Description (♂). Colouration: largely reddish to dark greyish brown, with only rostrum, bases of antennae, coxae and trochanters slightly paler and top of the head uniformly grey; halteres missing.



Molophilus (M.) binnaburra spec.nov. - male genitalia, dorsal aspect

Genitalia: basistyles long and slender with apical hook directed anteromediad; outer dististyles rather straight, apex forked into a short rounded inner lobe and a more pointed outer branch; inner dististyles C-shaped, bowed mediad, long, slender, enlarged basally and subapically, serrate near base and along bend; aedeagus long, slender, conical; phallosomic structure truncate.

Dimensions: wing length 4,1 mm.

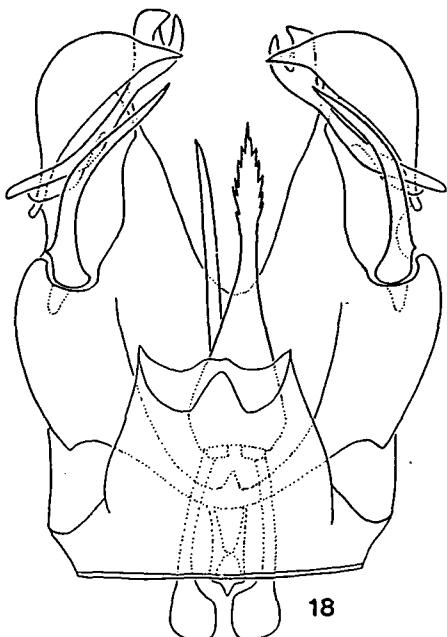
Material examined. Holotype ♂: Queensland, Binna Burra, Lamington National Park, 29.5.1966, Z. Liepa.

Distribution. Queensland.

Name. The specific name is after the type locality of this species, Binna Burra being used as a single word and being considered as an undeclinable noun in apposition to the generic name.

Molophilus (Molophilus) danielsi spec.nov. (Fig. 18)

Description (♂). Colouration: largely greyish yellow to greyish brown; a markedly darker subbasal ring on protibia.



Molophilus (M.) danielsi spec.nov. - male genitalia, dorsal aspect

Genitalia: basistyles moderately long and slender with apical hook strongly developed, pointed, straight and directed mediad; outer dististyles slender, apex roughly hand-shaped, forked into large outer and slender inner branch; inner dististyles about as long as outer dististyles, slim, pointed and arched mediad; aedeagus long and slender, conical; phallosomic structure roughly bottle-shaped, straight, with distal third strongly serrate and apex pointed. Dimensions: wing length 4,2 mm.

Remarks. The only close ally of *M. danielsi* spec.nov. is apparently *M. longicornis* SKUSE. *M. fuscolineatus* ALEXANDER is considered a junior synonym of *M. longicornis* (*Molophilus longicornis* SKUSE 1890 = *Molophilus fuscolineatus* ALEXANDER 1929b, syn.nov.)

Material examined. Holotype

♂: Queensland, 27°23'S/152°47'E, Samford, 19.9.1986, MV-lamp, G. Daniels (QM).

Distribution. Queensland.

Name. This species is dedicated to its collector and discoverer, Mr G. Daniels.

Molophilus (Molophilus) hollowayi spec.nov. (Fig. 19)

Description (♂). Colouration: largely greyish brown; mesonotum, coxae, trochanters, wing bases, halteres and basistyles brownish yellow.

Genitalia: basistyles long and moderately slender with strongly developed apical hook; outer dististyles large, apex forked into two substantial branches, the outer larger and more obtuse, the inner more pointed; inner disti-

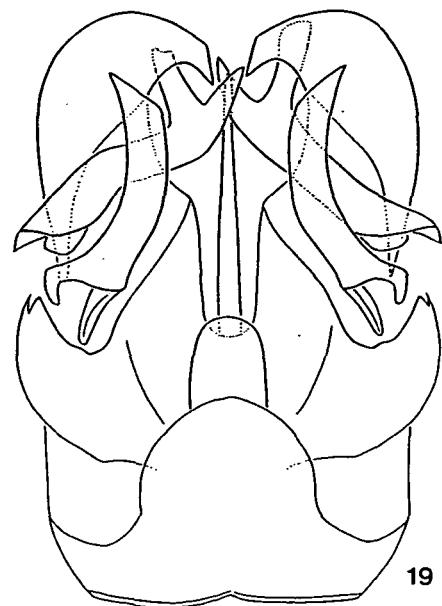
styles slightly arched laterad, short, stout and not particularly acute; aedeagus very long, slender, conical; phallosomic structure oval with apex obtuse.

Dimension: wing length 3,1 - 3,3 mm.

Material examined. Holotype ♂: Queensland, Dalrymple Heights Distr., Mt Williams, Site 15, 21°00'S/148°36'E, 1120 m, 21.4.1975, malaise trap, G.A. Holloway (AM). Paratypes: 2 ♂, same data as holotype (AM, GT).

Distribution. Queensland.

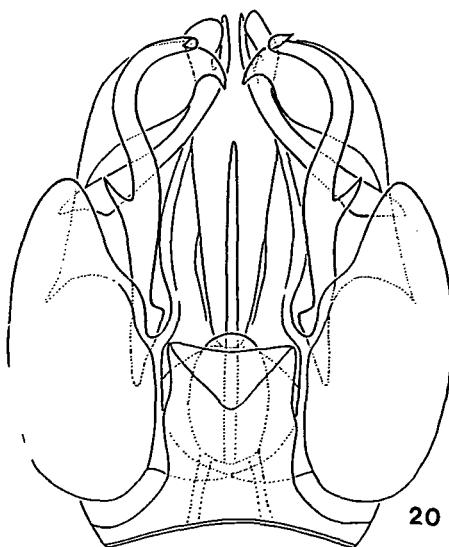
Name. This species is dedicated to its collector and discoverer, Mr G.A. Holloway.



Molophilus (M.) hollowayi
spec.nov. - male genitalia,
dorsal aspect

Molophilus (Molophilus) indivisus occidentalis subsp.nov. (Fig. 20)

Description. Colouration: largely brownish grey; scape, coxae, trochanters, wing bases and halteres brownish yellow; a subbasal ring on protibia blackish brown.



Molophilus (M.) indivisus
occidentalis subsp.nov. -
male genitalia, dorsal
aspect

Genitalia: basistyles moderately long and slender, with well developed apical hook, dorsal lobe well developed, long and wide; outer dististyles slightly arched laterad, with apex forked into long flat lobe and more pointed branch of the same length; inner dististyles long, with distal half curved mediad and apex often pointing dorsad, just before midlength a lateral spine directed posterolaterad; aedeagus long and very slender; phallosomic structure oval.

Female genitalia: cerci and sternal valves very long and thin, pointed.

Dimensions: wing length, male 4,5 - 5,0 mm, female 4,4 mm.

Material examined. Holotype ♂: Western Australia, Augusta, 3.10.1970, D.H. Colless (ANIC). Paratypes: Western Australia: 1 ♂, same data as holotype, 3 ♂, 3 mi. SW of Karridale, 3.10.1970, 1 ♂, 8 mi. N of Bunbury, 1.10.1970, 1 ♂, 1 mi. E of Jewel Cave, Augusta, 3.10.1970, 1 ♂, Pimelia, near Pemberton, 5.10.1970, 1 ♂, 24 mi. NW of Walpole, 7.10.1970, all D.H. Colless (ANIC); 1 ♂, 1 ♀, Margaret River, Rapids Crossing, 25 km S of Busselton, 22.11.1978, A. Neboiss (MV).

Distribution. Western Australia.

Name. The specific name is from the Latin adjective *occidentalis* (= western), referring to the distribution of this subspecies.

Molophilus (Molophilus) longifurcatus spec.nov. (Fig. 21)

Description (♂). Colouration: largely brownish grey; top of head, bases of antennae, sides of praesutural mesonotum, coxae, trochanters, wing bases, halteres and basistyles pale to dark yellowish grey; profemur somewhat darkened subapically, protibia darkened subbasally.

Genitalia: basistyles long and slender, with well developed apical hook, dorsal lobe well developed, long and wide, subtriangular; outer dististyles with base plump, otherwise slender, long, slightly arched laterad, apex forked into short pointed branch and longer rounded lobe; inner dististyles very long and almost straight, apex forked broadly and almost symmetrically; aedeagus very long and slender; phallosomic structure short, oval.

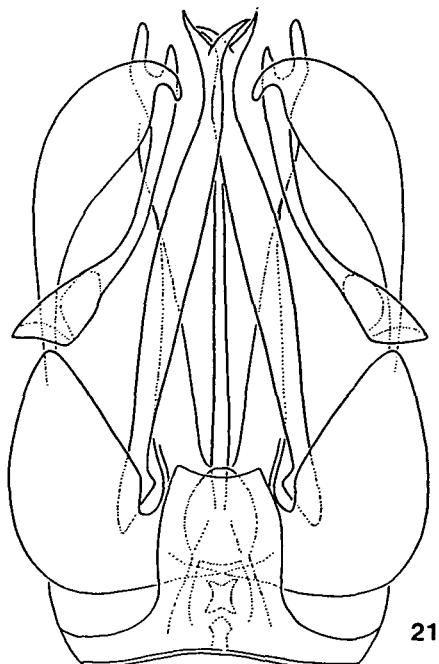
Dimensions: wing length 4,5 - 4,6 mm.

Material examined. Holotype ♂: Western Australia, 1 mi. E of Jewel Cave, Augusta, 3.10.1970, D.H. Colless (ANIC). Paratype: 1 ♂, Western Australia, 8 mi. N of Bunbury, 1.10.1970, D.H. Colless (GT).

Distribution. Western Australia.

Molophilus (M.) longifurcatus spec.nov. - male genitalia, dorsal aspect

Name. The specific name is a combination of the Latin words *longus* (= long) and *furcatus* (= forked), referring to the shape of the inner dististyle of this species.



21

Molophilus (Molophilus) macalpinei spec.nov.

(Fig. 22)

D e s c r i p t i o n . Colouration: head and base of antennae greyish white; mesonotum pale greyish white marked with black and brown; pleura grey to black; trochanters, wing bases and halteres pale greyish white; femora yellowish grey in basal half, otherwise white with black median and subapical ring, tibiae white with black subbasal and apical ring, tarsus greyish white and blackish brown, claws blackish brown; wings with dark subbasal patch; abdomen whitish grey to dull greyish yellow.

Male genitalia: basistyles moderately long and slender, with short apical hook; outer dististyles almost straight, apex forked into stout shorter and pointed longer branch; inner dististyles with base straight, remainder strongly arched mediad, pointed; aedeagus long and slender.

Female genitalia: cerci and sternal valves very long, thin, pointed.

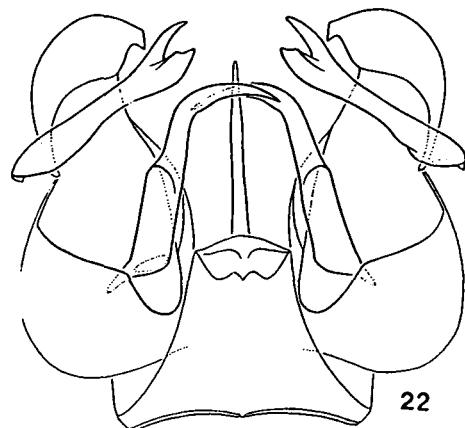
Dimensions: wing length, male 2,8 - 4,2 mm, female 3,0 - 4,7 mm.

M a t e r i a l e x a m i n e d . Holotype ♂: Queensland, 3 km NE of Mt Webb, 15° 03'S/145°09'E, 2.10.1980, malaise trap, D.H.

Colless (ANIC). Paratypes: Queensland: 6 ♂, 9 ♀, same locality as holotype, 2.-4.10.1980, 1 ♂, 1 ♀, 1 km SE of Mt Cook, 15°30'S/145°16'E, 14.10.1980, 3 ♂, 3 ♀, Moses Ck, 4 km N by E of Mt Finnigan, 15.-17.10.1980, 1 ♂, Annan River, 3 km W by S of Black Mt, 28.9.1980, 1 ♂, 1 ♀, 3,5 km SW by S of Mt Baird, 4.5.1981, 1 ♂, Mt Cook National Park, 15°29'S/145°16'E, 12.5.1981, 1 ♀, 3 km ENE of Mt Tozer, 12°44'S/143°14'E, 28.6.-4.7.1986, 2 ♂, 9 km ENE of Mt Tozer, 12°43'S/143°14'E, 5.-10.7.1986, all malaise trap, D.H. Colless (ANIC, GT); 1 ♂, 2 ♀, Claudie River, near Mt Lomond, 15.-18.12.1971, malaise trap, D.K. McAlpine, G.A. Holloway, D.P. Sands (AM).

Distribution. Queensland.

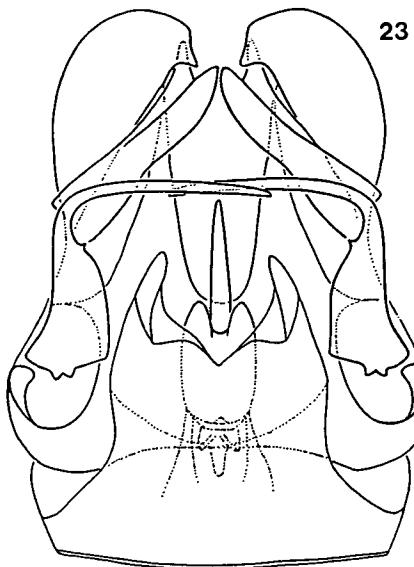
Name. This species is dedicated to Dr. D.K. McAlpine, one of its collectors.



Molophilus (M.) macalpinei
spec.nov. - male genitalia,
dorsal aspect

Molophilus (Molophilus) manjimupensis spec.nov. (Fig. 23)

Description (♂). Colouration: largely yellowish to pale reddish brown; flagellum, a subbasal ring on protibia and abdominal segments 1-8 greyish brown.



Molophilus (M.) manjimupensis spec.nov. - male genitalia, dorsal aspect

Genitalia: basistyles long and slender, with rather obtuse and plump apical hook; outer dististyles short, plump, with apex forked into shorter wider and longer narrower branch; inner dististyles with broad base, a small mesal tooth at its end, then perpendicularly bent mediad, distal half straight and very slender with apex not particularly pointed; aedeagus short, conical, phallosomic structure with apex bilobed.

Dimensions: wing length 4,8-5,6 mm.

Material examined. Holotype ♂: Western Australia, 6 mi. SW of Manjimup, 5.10.1970, D.H. Colless (ANIC). Paratypes: Western Australia: 1 ♂, 8 mi. N of Bunbury, 1.10.1970, 1 ♂, 1 mi. E of Jewel

Cave, Augusta, 3.10.1970, 1 ♂, 3 mi. SW of Karridale, 3.10.1970, 1 ♂, Pimelia, near Pemberton, 5.10.1970, all D.H. Colless (ANIC, GT).

Distribution. Western Australia.

Name. *Manjimupensis* is Latinized, meaning from Manjimup and referring to the type locality of this species.

Molophilus (Molophilus) mouldsi spec.nov. (Fig. 24)

Description (♂). Colouration: greyish to brownish yellow (most probably strongly discolored); wings with black subbasal spot.

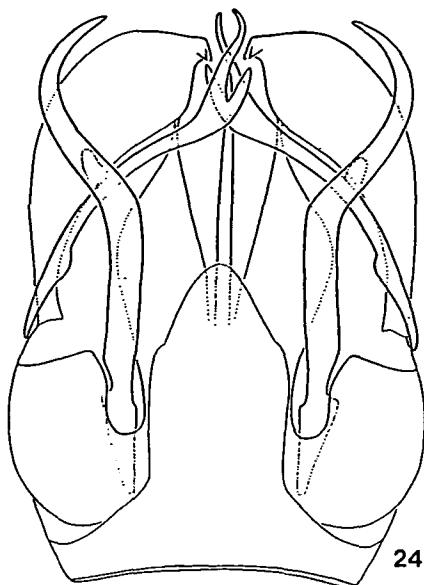
Genitalia: basistyles long and rather bulky, apically hooked with beak apparently toothed, dorsal lobe developed, about right-angled; outer dististyles long and slender, slightly S-curved, with apex forked into a shorter thumb-shaped and longer S-curved branch; inner dististyles straight from base to about midlength, then bent laterad and curving mediad, an obtuse

ventral tooth at about two thirds length, apex pointed; aedeagus long and slender. Dimensions: wing length 3,6 mm.

Material examined. Holotype ♂: Queensland, Upper Freshwater Ck, Whitfield Ra., nr Cairns, 15.12.1974, Moulds (ANIC).

Distribution. Queensland.

Name. This species is dedicated to its discoverer and collector, Mr M.S. Moulds.



Molophilus (M.) mouldsi spec. nov. - male genitalia, dorsal aspect

Molophilus (Molophilus) longioricornis ALEXANDER

(Fig. 25)

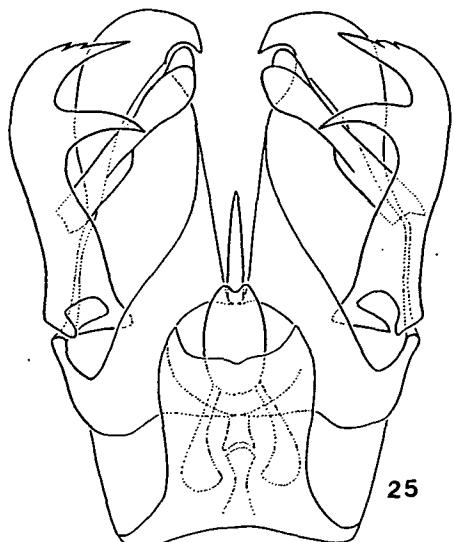
Molophilus longioricornis ALEXANDER 1921: 210.

Primary type. Holotype ♂: Queensland, Binda, 17.8.1920, J.F. Illingworth (SIW).

Remarks. *M. longioricornis* was hitherto known from the holotype only.

Material examined. Queensland: holotype; 1 ♂, Birthday Ck, 6 km NW by W of Paluma, 25.9.1980, at light, D.H. Colless (ANIC).

Distribution. Queensland.



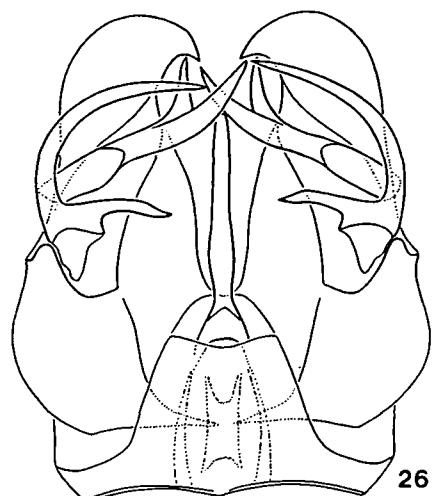
25

Molophilus (M.) longioricornis ALEXANDER - male genitalia, dorsal aspect

Molophilus (Molophilus) pimelia spec.nov.

(Fig. 26)

Description (♂). Colouration: largely yellowish to greyish brown, coxae, trochanters, wing bases and halteres somewhat paler, flagellum and abdominal segments 1-8 somewhat darker.



Molophilus (M.) pimelia
spec.nov. - male genitalia,
dorsal aspect

Genitalia: basistyles moderately long and bulky, forming a strong apical hook; outer dististyles forked apically into two pointed branches of similar length; inner dististyles evenly curved mediad, with apex pointed and base very wide and drawn out into an almost straight subbasal branch which points mediad; aedeagus moderately slender and rather obtuse; phallosomic structure oval.

Dimensions: wing length 3,3-3,7 mm.

Material examined. Holotype

♂: Western Australia, Pimelia, near Pemberton, 5.10.1970, D.H. Colless (ANIC). Paratypes: Western Australia: 1 ♂, Mt Chudalup, S of Northcliffe, 6.10.1970, 1 ♂, Nornalup National Park, 8.10.1970, 1 ♂, Porongurup National Park, 11.10.1970, D.H. Colless (ANIC, GT).

Distribution. Western Australia.

Name. This species is named after its type locality. Pimelia should be considered as an undeclinable noun in apposition to the generic name.

Molophilus (Molophilus) subannulipes ALEXANDER

(Fig. 27)

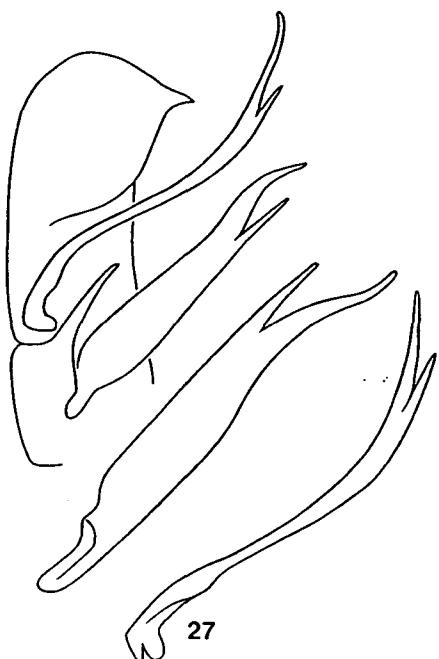
Molophilus (Molophilus) subannulipes ALEXANDER 1978: 172.

Primary type. Holotype ♂: South Queensland (without more exact data), Hemmingsen No. 3119 (supposedly in SIW).

Remarks. ALEXANDER (1978) recorded a total of 2 males and 2 females of *M. subannulipes*, but the entire type series appears to be lost.

Material examined. None.

Distribution. Queensland.



Molophilus (M.) subannulipes ALEXANDER -
male genitalia, dorsal aspect
(simplified from Alexander 1978)

Molophilus (Molophilus) vallisspei spec.nov.

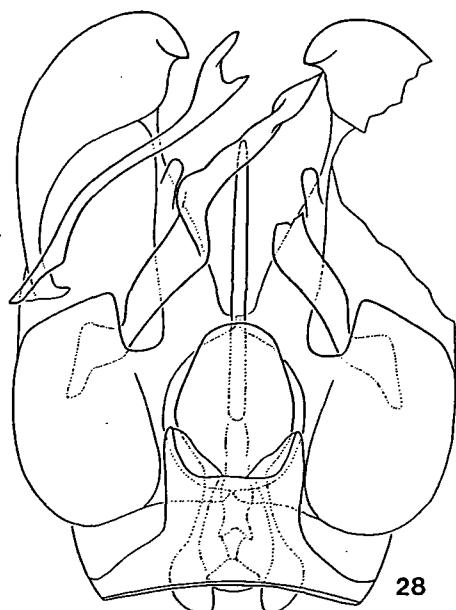
(Fig. 28)

D e s c r i p t i o n (♂). Colouration: largely yellowish to greyish brown; top of head, lateral margin of mesonotum and wing bases greyish to yellowish white; femora greyish brown with greyish white subapical and apical ring, legs otherwise with indistinct pale and dark pattern.

Genitalia: basistyles long and bulky, with apex forming a short and rather obtuse hook, dorsal lobe developed, about right-angled, mesal lobe with thumb-shaped process; outer dististyles long, slender, slightly arched mediad, apically forked into two branches of different length; inner dististyles long, with several bends and turns and with foliate apex; aedeagus long and slender; phallosomic structure broadly oval.

Dimensions: wing length 3,8 mm.

M a t e r i a l e x a m i n e d. Holotype ♂: Queensland, 15°16'S/144°59'E, 14 km W by N Hope Vale Mission, 9.5.1981, malaise trap, D.H. Colless (ANIC).



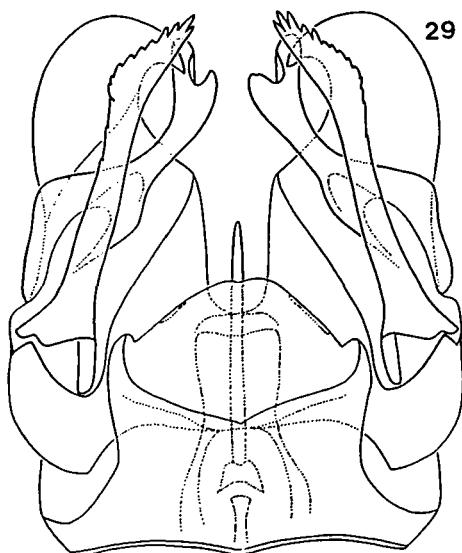
Molophilus (M.) vallisspei
spec.nov. - male genitalia,
dorsal aspect

Distribution. Queensland.

Name. This species is named after its type locality, the place name (genitive) being translated into Latin.

Molophilus (Molophilus) walpole spec.nov. (Fig. 29)

Description (♂). Colouration: largely yellowish to pale reddish brown, only flagellum markedly darker.



Molophilus (M.) walpole spec. nov. - male genitalia, dorsal aspect

Genitalia: tergite 9 very broad; basistyles moderately long and bulky, with strong apical hook, mesal lobe protruding; outer dististyles almost straight, with base long and wide and apex divided into two rather wide lobes of different length; inner dististyles long, slender, with apex foot-shaped, numerous small teeth along lateral and distal margin; aedeagus short and slender; phallosomic structure truncate.

Dimensions: wing length 3,8-4,3 mm.

Material examined. Holotype ♂: Western Australia, 24 mi. NW of Walpole, 7.10.1970, D.H. Colless (ANIC). Paratype: 1 ♂, same data as holotype (GT).

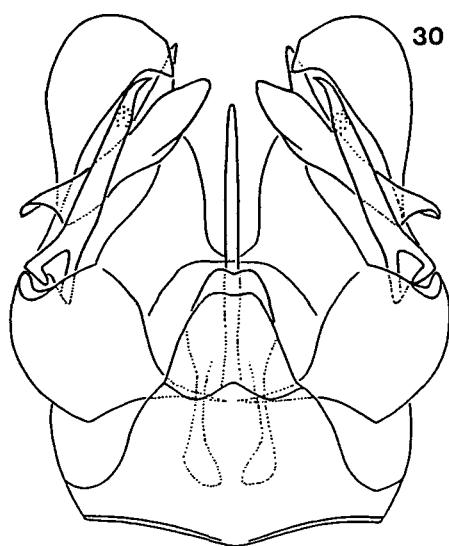
Distribution. Western Australia.

Name. This species is named after its type locality. Walpole should be considered as an undeclinable noun in apposition to the generic name.

Molophilus (Molophilus) zenta spec.nov. (Fig. 30)

Description. Colouration: almost uniformly yellowish to greyish brown, only flagellum markedly darker and top of head grey.

Male genitalia: tergite 9 short, wide, trapezoid; basistyles moderately long and stout, forming a strong apical hook; outer dististyles plump, apically forked into a stouter inner and a more slender and slightly longer outer branch; inner dististyles slender, pointed, subapically with numerous



Molophilus (M.) zenta spec. nov. - male genitalia, dorsal aspect

Ms Zenta Liepa. Zenta should be regarded as an undeclinable noun in apposition to the generic name.

very small teeth or spinules, apex slightly arched mediad; aedeagus long, slender, conical; phallosomic structure slightly bilobed.

Female genitalia: cerci and sternal valves long, thin, pointed.

Dimensions: wing length, male 3,6-3,8 mm, female 3,6 mm.

M a t e r i a l e x a m i n e d . Holotype ♂: Queensland, Beerburrum Ck, Beerburrum, 23.5.1966, Z. Liepa (ANIC). Paratypes: Queensland: 1 ♀, same data as holotype (ANIC); 2 ♂, Woombye, near Nambour, 11.-16.10.1965, D.H. Colless (ANIC, GT).

Distribution. Queensland.

Name. This species is named after the late

Molophilus (Molophilus) ruficollis group

Molophilus gracilis group, *M. ruficollis* subgroup, sensu ALEXANDER.

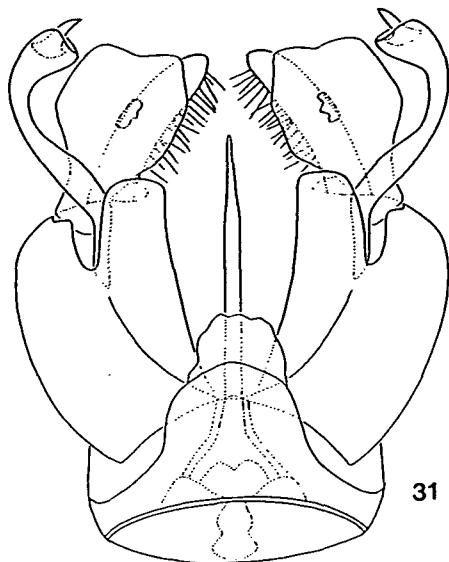
Definition. Male genitalia: ventral lobe of basistyles well developed, but with apex unarmed; mesal lobe generally not developed, rarely strongly developed.

Remarks. The species known from Queensland and Western Australia are *M. (M.) auriculifer* spec.nov., *M. (M.) dorsolobatus* spec.nov., *M. (M.) mjobergi* ALEXANDER, *M. (M.) multivirvatus* spec.nov., *M. (M.) perserenus* ALEXANDER and *M. (M.) unispinosus* ALEXANDER. Many species of the *M. ruficollis* group occur in south-eastern Australia.

Molophilus (Molophilus) auriculifer spec.nov.

(Fig. 31)

D e s c r i p t i o n (♂). Colouration: largely yellowish to pale greyish brown; top of head and lateral margin of mesonotum whitish yellow.



Molophilus (M.) auriculifer
spec.nov. - male genitalia,
dorsal aspect

Genitalia: tergite 9 short; basistyles with ventral lobe well developed, sausage-shaped, arched mediad, its mesal side with a large group of long bristles, mesal lobe developed; outer dististyles large, ear-shaped, largely membranous with small sclerotized structure near centre of ventral face; inner dististyles slim, club-shaped, strongly arched mediad, apically forming kind of a collar with central spine; aedeagus long, slender, apex conical; phallosomic structure hardly detectable, very small.

Dimensions: wing length 3,8-4,0 mm.

M a t e r i a l e x a m i n e d . H o l o-

type ♂: Queensland, Moses Ck, 4 km N by E of Mt Finnigan, 16.10.1980, malaise trap, D.H. Colless (ANIC). Paratype: 1 ♂, Queensland, 15°50'S/145°20'E, Gap Ck, 5 km ESE Mt Finnigan, 14.5.1981, malaise trap, D.H. Colless (GT).

Distribution: Queensland.

Name. *Auriculifer* is a combination of two Latin words; meaning "bearing ears" and being used as a participle it refers to the peculiar outer dististyles of this species.

Molophilus (Molophilus) dorsolobatus spec.nov. (Fig. 32)

D e s c r i p t i o n (♂). Colouration: largely dark greyish brown; coxae, trochanters, wing bases and halteres yellowish brown; a lateral spot on praesutural mesonotum whitish yellow.

Genitalia: tergite 9 short, wide, trapezoid; basistyles rather short and moderately stout with apex well rounded and bowed mediad, dorsal lobe huge, almost as long as ventral lobe, mesal lobe slightly protruding; outer dististyles slender, S-shaped, a small tooth near base on mesal face, apex forked into two pointed branches of about the same length; inner dististyles short, forked at about midlength into a short more dorsal branch and a much longer more ventral branch; aedeagus long, very slender; phallosomic structure almost circular.

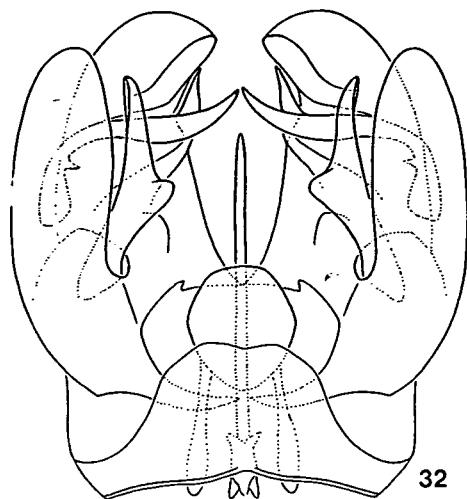
Dimensions: wing length 3,8 mm.

Remarks. *M. dorsolobatus* spec.nov. is certainly not a typical member of the *M. ruficollis* group; it may as well be an aberrant member of the *M. plagiatus* group.

Material examined. Holotype ♂: Western Australia, 8 mi. N of Bunbury, 1.10.1970, D.H. Colless (ANIC).

Distribution. Queensland.

Name. *Dorsolobatus* is a combination of two Latin words and is supposed to mean "with lobe on dorsum", referring to the huge dorsal lobe of the basistyles in this species.



Molophilus (M.) dorsolobatus
spec.nov. - male genitalia,
dorsal aspect

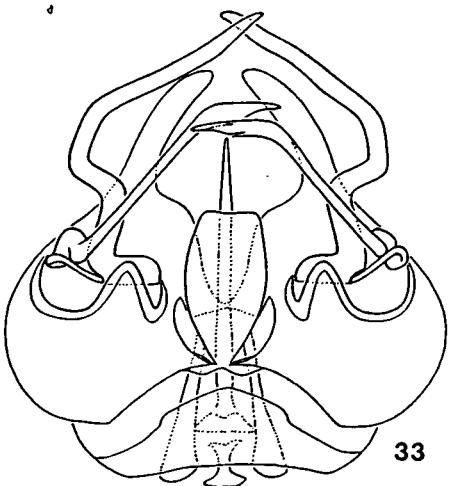
Molophilus (Molophilus) mjobergi ALEXANDER

(Fig. 33)

Molophilus mjobergi ALEXANDER 1927c: 51.

Primary type. Holotype ♂: Queensland, Malanda, 2400 ft, Eric Mjöberg (NRS).

Remarks. *M. mjobergi* was hitherto known from the holotype only. From the description of ALEXANDER (1927c) and from the poorly preserved holotype I am quite positive that the material listed above and illustrated in Fig. 33 belongs to this species.



Molophilus (M.) mjobergi
ALEXANDER - male genitalia,
dorsal aspect

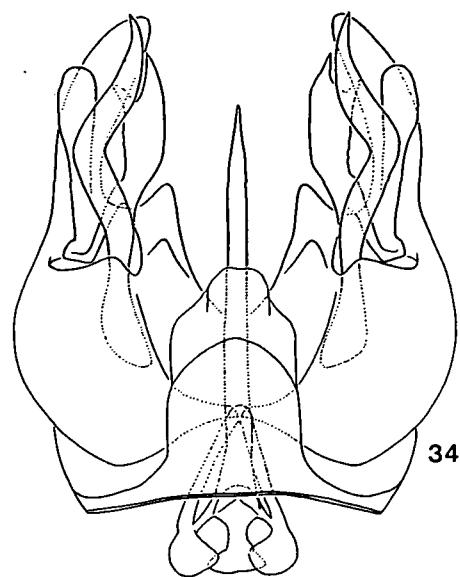
Material examined. Queensland: holotype; 1 ♂, 1 mi. E of Kuranda, 11. 3.1964, I.F.B. Common and M.S. Upton (ANIC); 1 ♂, Birthday Ck, 6 km NW by W of Paluma, 25. 9.1980, at light, D.H. Colless (GT).

Distribution. Queensland.

Molophilus (Molophilus) multicurvatus spec.nov.

(Fig. 34).

Description (♂). Colouration: largely pale greyish brown, legs somewhat darker; top of head, pronotum and lateral margin of mesonotum pale yellow.



Molophilus (M.) multicurvatus
spec.nov. - male genitalia,
dorsal aspect

Genitalia: tergite 9 short and narrow; basistyles with ventral lobe finger-shaped, slightly arched mediad, mesal lobe well developed, angulated; outer dististyles almost completely split into a club-shaped more dorsal and a bipointed more ventral branch; inner dististyles long, S-shaped, pointed; aedeagus long and rather thick, apex conical; phallosomic structure very small, hardly detectable.

Dimensions: wing length 3,5 mm.

Material examined. Holotype ♂: Queensland, 12°44'S/143°14'E, 3 km ENE of Mt Tozer, 28.6.-4.7.1986, malaise trap, D.H. Colless (ANIC).

Distribution. Queensland.

Name. Multicurvatus is a combination of two Latin words. It is supposed to stand for "much curved", referring to the details of the hypopygium of this species.

Molophilus (Molophilus) perserenus ALEXANDER (Fig. 35)

Molophilus (Molophilus) perserenus ALEXANDER 1978: 172.

Primary type. Holotype ♂: Queensland, Samford Valley, 14 mi. WNW of Brisbane, July-September 1972, Bert Persson (SIW).

Remarks. *M. perserenus* is hitherto known from the holotype only.

Material examined. Holotype.

Distribution. Queensland.



Molophilus (M.) perserenus ALEXANDER -
male genitalia, dorsal aspect

(simplified from Alexander 1978)

Molophilus (Molophilus) unispinosus ALEXANDER

Molophilus unispinosus ALEXANDER 1921: 209.

Primary type. Holotype ♂: Queensland, Babinda, 7.8.1920, J.F. Illingworth (SIW).

Remarks. *M. unispinosus* is hitherto known from the holotype only. The species is very similar to *M. auriculifer* spec.nov. However, the outer dististyles of *M. unispinosus* are slightly more bilobed and without a sclerotized structure on ventral face, and the inner dististyles are markedly plumper, with the apical spine much larger.

Material examined. Holotype.

Distribution. Queensland.

Molophilus (Molophilus) verticalis group

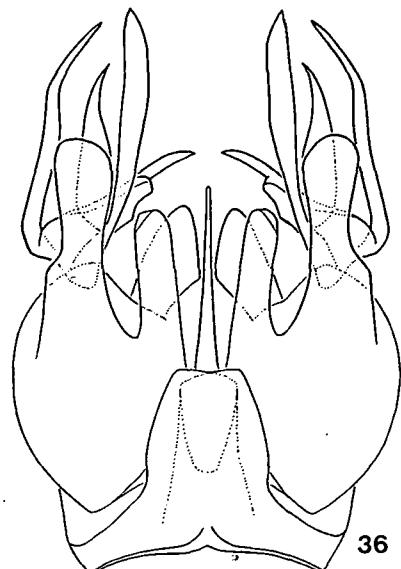
Molophilus verticalis group, sensu ALEXANDER.

Definition. Male genitalia: basistyles with the dorsal lobe very significantly developed, the other lobes quite insignificant; outer dististyles highly complicated in structure.

Remarks. Only a single species, *M. (M.) christine* spec.nov., is known from Queensland. Two more species, *M. (M.) verticalis* ALEXANDER and *M. (M.) reductus* ALEXANDER, may coexist in the same habitats in Victoria and Tasmania. *M. reductus* was described as a subspecies of *M. verticalis* by ALEXANDER (1927b).

Molophilus (Molophilus) christine spec.nov. (Fig. 36)

Description. Colouration: almost uniformly yellowish to pale greyish brown.



Molophilus (M.) christine spec.nov. - male genitalia, dorsal aspect

Male genitalia: basistyles short, mesal lobe protruding, dorsal lobe long, with apex widely and evenly rounded, ventral lobe short, directed posteromediad; outer dististyles a complicated trifid structure; inner dististyles slim, foliate, apex serrate laterally; aedeagus moderately long, conical; phallosomic structure truncate.

Female genitalia: cerci and sternal valves long and thin.

Dimensions: wing length, male 3,7 mm, female 3,7 mm.

Material examined. Holotype ♂: Queensland, Searys Ck, near Rainbow Beach, 9. 1.1986, at light, C., D. and G: Theischinger (ANIC). Paratype: 1 ♀, same data as holotype (ANIC).

Distribution. Queensland.

Name. This species is named after my wife. Christine should be considered as an undeclinable noun in apposition to the generic name.

Subgenus *?Molophilus* CURTIS

Molophilus gracilis group, *M. ruficollis* subgroup, sensu ALEXANDER.

Definition. Male genitalia: largely as in *M. ruficollis* group, however, the phallosomic structure is divided into two halves that are narrowly connected at the midline, and the posterior margin of tergite 9 is stronger

sclerotized and defined.

Remarks. Two species, *M. (?M.) flavonotatus* ALEXANDER and *M. (?M.) mimicus* ALEXANDER, are known from Western Australia. This group seems to be absent from eastern Australia. A phallosomic structure of very similar shape is known to me from subgenus *Promolophilus* ALEXANDER 1966 (California, western North America, eastern Asia, Himalayas), and from the South American species *M. bellicosus* ALEXANDER 1929a.

***Molophilus (?Molophilus) flavoannulatus* ALEXANDER**

(?Fig. 37)

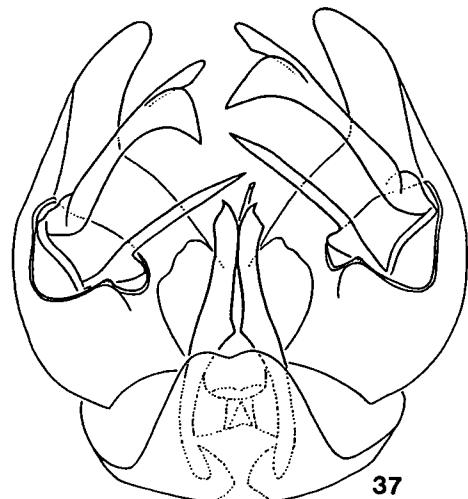
Molophilus flavoannulatus ALEXANDER 1927a: 29.

Primary type. Holotype ♂: Western Australia, Swan River, J. Clark (MV).

Remarks. *M. flavoannulatus* was hitherto known from the holotype only. From ALEXANDER's (1927a) description it appears that the material mentioned above and illustrated in Fig. 37 belongs to this species. The outer dististyles of the holotype have probably been described in inverted position.

Material examined. 1 ♂, probably of this species, Western Australia, Yunderup, S of Mandurah, 21.8.1977, D.L. Serventy (WAM).

Distribution. Western Australia.



Molophilus (?M.) flavoannulatus ALEXANDER - male genitalia, dorsal aspect

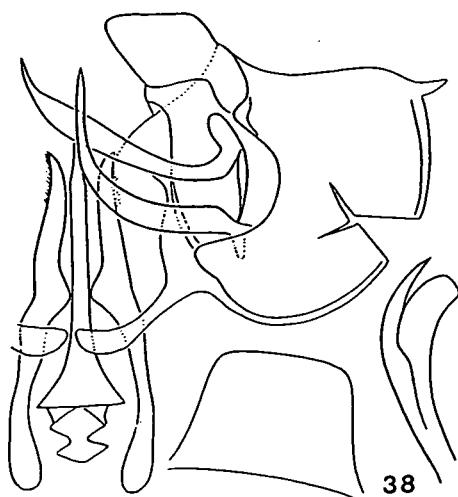
***Molophilus (?Molophilus) mimicus* ALEXANDER**

(?Fig. 38)

Molophilus mimicus ALEXANDER 1929b: 336.

Primary type. Holotype ♂: Western Australia, Pemberton, 28.8.1926, E.W. Ferguson (supposedly in ANIC, but possibly lost).

Remarks. From ALEXANDER's (1929b) description it appears that the material mentioned above and illustrated in Fig. 38 belongs to this species. *M. mimicus* was hitherto known from the type series (3 ♂, 1 ♀) which seems to be lost.



Material examined. 1 ♂, probably of this species, Western Australia, Piesse Brook, Kalamunda, 10.11.1975, J. Terni (MV).

Distribution. Western Australia.

Molophilus (?M.) *mimicus* ALEXANDER - male genitalia, dorsal aspect

Superbomolophilus subgen.nov.

Molophilus gracilis group, *M. ruficollis* subgroup, sensu ALEXANDER.

Type species. *Molophilus brumby* spec.nov.

Definition. Male genitalia: posterior margin of tergite 9 strongly sclerotized and armed; dorsal and mesal lobe of basistyles moderately well developed, ventral lobe strongly developed, long, slender, not armed; inner dististyles much more substantial than outer dististyles, almost obscuring them (from dorsal aspect); phallosomic structure almost completely divided, the bases directed dorsad, otherwise both parts drawn out into long slender horns positioned along mesal face of basistyles.

Remarks. The peculiar shape of the phallosomic structure is considered apomorphic and is, together with the other genitalic features as specified above, diagnostic for *Superbomolophilus* subgen.nov. The species known from Queensland are *M. (S.) brumby* spec.nov. and *M. (S.) froggatti* SKUSE. It appears that at least 2 more Australian species, *M. gigas* ALEXANDER and *M. inelegans* ALEXANDER, which are regarded close allies of *M. (S.) froggatti* by ALEXANDER (1927b), and possibly some South American species belong to *Superbomolophilus* subgen.nov.

Name. The members of this group stand out from all other *Molophilus* in complexity of male genitalic structures which suggests a combination of *superbus* (=Latin: splendid) and *Molophilus* for their subgeneric name.

Molophilus (Superbomolophilus) brumby spec.nov.

(Fig. 39)

D e s c r i p t i o n . Colouration: largely greyish brown; top of head grey; coxae and trochanters brownish yellow, legs otherwise largely greyish brown, but metatibia with extremely significant and thickened black apical ring, the basaltarsal segments of hind leg yellowish white with black apical ring, and the remaining basal segments and claws black.

Male genitalia: basistyles with dorsal lobe flat, long, rounded, and ventral lobe long, slender, strongly arched mediad; outer dististyles simple, about the shape of a bent finger; inner dististyles wide at base, strongly bent at about midlength, as a whole resembling the head of a horse; aedeagus long and slender, S-curved, apex conical; phallosomic structure with apices almost straight and sharply pointed.

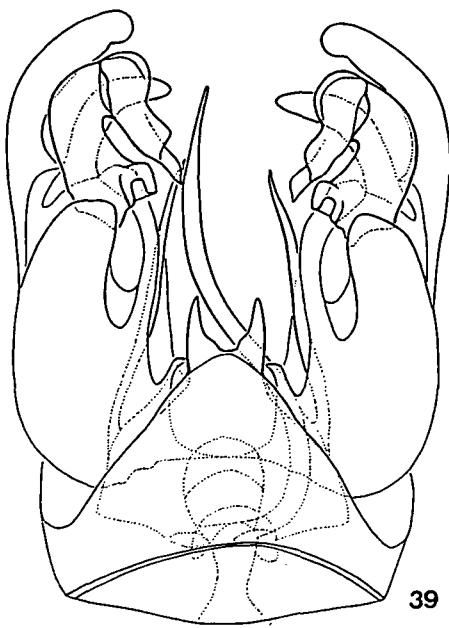
Female genitalia: cerci and sternal valves extremely long and thin, pointed.

Dimensions: wing length, male 3,5-4,3 mm, female 3,7-5,0 mm.

M a t e r i a l e x a m i n e d . Holotype ♂, Queensland, 15°03'S/145°09'E, 3 km NE of Mt Webb, 2.10.1980, malaise trap, D.H. Colless (ANIC). Paratypes: Queensland: 15 ♂, 12 ♀, same locality as holotype, 1.-2.5.1986, 4 ♀, Moses Ck, 4 km N by E of Mt Finnigan, 15.-16.10.1980, all malaise trap, D.H. Colless (ANIC, GT).

Distribution. Queensland.

Name. Brumby, the Australian Aboriginal word for horse, refers to the peculiar shape of the inner dististyles of this species and should be considered as an undeclinable noun in apposition to the generic name.



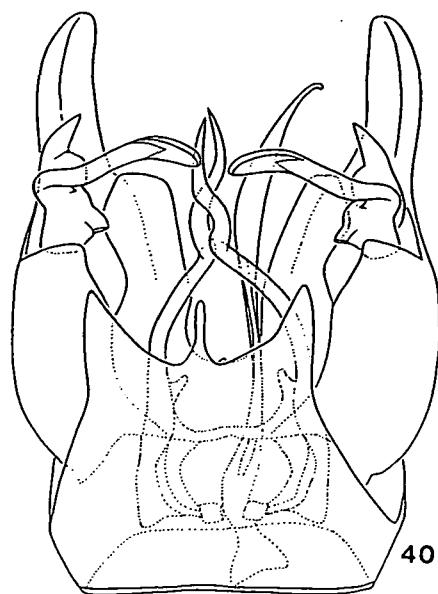
M. (Superbomolophilus) brumby spec.nov. - male genitalia, dorsal aspect

Molophilus (Superbomolophilus) froggatti SKUSE

(Fig. 40)

Molophilus froggatti SKUSE 1890: 807.

Primary type. Holotype ♀: New South Wales, Waverly, near Sydney, October (ANIC).



M. (Superbomolophilus) froggatti SKUSE - male genitalia, dorsal aspect

Remarks. SKUSE (1890) described *M. froggatti* after a single female. ALEXANDER (1929c) recognized the male and described and illustrated the male hypopygium. It appears to me that ALEXANDER (1929c) mixed up outer and inner dististyles in his description as well as in his illustration of *M. froggatti*.

Material examined. Holotype; 1 ♂, Queensland, Sunnybank, 10.9.1926 (UQ).

Distribution. Queensland, New South Wales, Victoria, Tasmania.

Species of *Molophilus* CURTIS, known from Queensland (32 species):

Molophilus (Austromolophilus) benesignatus, *M. (A.) cassisi*, *M. (A.) commoni*, *M. (A.) denise*, *M. (A.) expansistylus*, *M. (A.) fragillimus*, *M. (A.) trianguliferus*, *M. (A.) pulchripes*, *M. (A.) uncinatus*, *M. (A.) uptoni*; *Molophilus (Molophilus) gracilis*, *M. (M.) multispicatus*, *M. (M.) fergusonianus*; *M. (M.) collessi*; *M. (M.) acutissimus*, *M. (M.) binnaburra*, *M. (M.) danielsi*, *M. (M.) hollowayi*, *M. (M.) macalpinei*, *M. (M.) mouldsi*, *M. (M.) longioricornis*, *M. (M.) subannulipes*, *M. (M.) vallisspei*, *M. (M.) zenta*; *M. (M.) auriculifer*, *M. (M.) mjobergi*, *M. (M.) multicurvatus*, *M. (M.) perserenus*, *M. (M.) unispinosus*; *M. (M.) christine*; *Molophilus (Superbomolophilus) brumby*, *M. (S.) froggatti*.

Species of *Molophilus* CURTIS, known from Western Australia (9 species):

Molophilus (Austromolophilus) tenuissimus; *Molophilus (Molophilus) indivisus occidentalis*, *M. (M.) longifurcatus*, *M. (M.) manjimupensis*, *M. (M.) pimelia*, *M. (M.) walpole*; *M. (M.) dorsolobatus*; *Molophilus (?Molophilus) flavoannulatus*, *M. (?M.) mimicus*.

Zusammenfassung

Die vorhandene Information über die *Molophilus* Fauna von Queensland und Westaustralien wird zusammenfassend dargestellt. Zwei neue Subgenera, *Austromolophilus* und *Superbomolophilus*, werden eingeführt. 26 neue Arten und 1 neue Unterart werden beschrieben. *Molophilus hastatus* ALEXANDER wird als jüngeres Synonym von *M. pulchripes* SKUSE betrachtet, *M. fuscolineatus* ALEXANDER als jüngeres Synonym von *M. longicornis* SKUSE. *M. verticalis reductus* ALEXANDER wird als eigene Art, *M. reductus* ALEXANDER, angesehen.

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